

## DECLARATION FOR PATENT APPLICATION

As a below-named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled APPARATUS AND METHOD FOR SPECULATIVE PREFETCHING AFTER DATA CACHE MISSES, the specification of which

(check one) XX is attached hereto.

                 was filed on                  as  
Application Serial No.                   
and was amended on                   
(if applicable)

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s)	Priority Claimed
(Number) <u>                </u> (Country) <u>                </u> (Day/Month/Year Filed) <u>                </u>	Yes <u>                </u> No <u>                </u>
(Number) <u>                </u> (Country) <u>                </u> (Day/Month/Year Filed) <u>                </u>	Yes <u>                </u> No <u>                </u>

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulation, §1.56(e) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

(Application Serial No.) <u>                </u>	(Filing Date) <u>                </u>	(Status) <u>                </u> (patented, pending, abandoned)
(Application Serial No.) <u>                </u>	(Filing Date) <u>                </u>	(Status) <u>                </u> (patented, pending, abandoned)

Direct all telephone calls to Gary S. Williams at (650) 493-4935.  
Address all correspondence to:

PENNIE & EDMONDS LLP  
3300 Hillview Avenue  
Palo Alto, California 94304

File No. 9772-0300-999

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Title 18, United States Code, §1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of sole or  
first inventor:

NORMAN PAUL JOUPPI

Inventor's signature:

Norman Paul Jouppi

Date:

January 4, 2001

Residence:

PALO ALTO, CALIFORNIA

Citizenship:

USA

Post Office Address:

617 COLORADO AVENUE

PALO ALTO, CALIFORNIA 94306

Full name of  
second inventor:

KEITH ISTVAN FARKAS

Inventor's signature

Keith Farkas

Date:

January 4, 2001

Residence:

SAN CARLOS, CALIFORNIA

Citizenship:

USA

Post Office Address:

345 LAUREL STREET

SAN CARLOS, CALIFORNIA 94070

JOINT  
ASSIGNMENT

WHEREAS, WE, NORMAN PAUL JOUPPI, a resident of Palo Alto, California, a citizen of the United States of America; and KEITH ISTVAN FARKAS, a resident of San Carlos, California, a citizen of the United States of America (hereinafter "ASSIGNORS"), have invented certain new and useful improvements in **APPARATUS AND METHOD FOR SPECULATIVE PREFETCHING AFTER DATA CACHE MISSES**, and having executed concurrently herewith an application for a United States patent disclosing and identifying the invention; which is identified by Pennie & Edmonds docket no. 9772-0300-999; and

WHEREAS, COMPAQ COMPUTER CORPORATION, having its principal place of business at 20555 S.H. 249, Legal Department, MC 110701 Houston, Texas, a corporation created and existing under and by virtue of the laws of the State of Delaware is (hereinafter "ASSIGNEE") is desirous of acquiring the entire right, title and interest in and to the aforesaid application and the invention disclosed therein, and in and to all embodiments of the invention, heretofore conceived, made or discovered by said Inventors (all collectively hereinafter termed "said invention"), and in and to any and all patents, inventor's certificates and other forms of protection (hereinafter termed "patents") thereon granted in the United States and foreign countries, to and under the said invention and the said application:

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, we, the said ASSIGNORS, hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, our entire right, title and interest in, to and under the said invention, and the said application for U.S. Letters Patent, and any and all divisions, continuations and renewals thereof, and any and all Patents of the United States which may be granted thereon and all reissues and extensions thereof; and all applications for industrial property protection, including, without limitation, all applications for patents, utility models, and designs which may hereafter be filed for said invention in any country or countries foreign to the United States, together with the right to file such applications and the right to claim for the same the priority rights derived from said United States application under the Patent Laws of the United States, the International Convention for the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and all forms of industrial property protection, including, without limitation, patents, utility models, inventors' certificates and designs which may be granted for said invention in any country or countries foreign to the United States and all extensions, renewals and reissues thereof;

WE HEREBY authorize and request the Commissioner of Patents and Trademarks of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents or other evidence or forms of industrial property protection on applications as aforesaid, to issue the same to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND WE HEREBY covenant and agree that we have full right to convey the entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith.

AND WE HEREBY further covenant and agree that we will communicate to the said ASSIGNEE, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, reissue and foreign applications, make all rightful oaths, and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper protection for said invention in all countries.

The terms, covenants and conditions of this assignment shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding on said Inventors, their heirs, legal representatives and assigns.

IN TESTIMONY WHEREOF, said Inventors have executed and delivered this instrument to said Assignee the day and year below written.

1.

NORMAN PAUL JOUPPI

State of California )

)

) SS.:

County of Santa Clara )

)

On this 4<sup>th</sup> day of January, 2001, before me, a Notary Public in and for the State and County aforesaid, personally appeared Norman Paul Jouppi, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

Seal:



Notary Public.

2.

KEITH ISTVAN FARKAS

State of California )

)

) SS.:

County of Santa Clara )

)

On this 4<sup>th</sup> day of January, 2001, before me, a Notary Public in and for the State and County aforesaid, personally appeared Keith Istvan Farkas, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

Seal:



Notary Public.